the box

CL 112 / CL 115 / CL 118 Sub MKII

active subwoofer

thomann
MUSIC IS OUR PASSION

user manual

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1 General information

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

1.1 Further information

On our website (*www.thomann.de)* you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

1.3 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this manual.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
CAUTION!	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
	Warning – high-voltage.
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended to be used in a sound reinforcement system. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety

DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.

DANGER!

Electric shock caused by high voltages inside

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.

DANGER!

Electric shock caused by short-circuit

Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.

CAUTION!

Possible hearing damage

The device can produce volume levels that may cause temporary or permanent hearing impairment. Over an extended period of time, even levels that seem to be uncritical can cause hearing damage.

Decrease the volume level immediately if you experience ringing in your ears or hearing impairment. If this is not possible, keep a greater distance or use sufficient ear protectors.

NOTICE!

Risk of fire

Do not cover the device nor any ventilation slots. Do not place the device near any direct heat source. Keep the device away from naked flames.

NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

NOTICE!

Power supply

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

3 Features

Special features of the device:

- Inputs: XLR and 1/4" phone sockets, RCA sockets (CL 115 and CL 118)
- Outputs: NL4 chassis connectors for passive speaker boxes (top), DIRECT OUT (CL 115 and CL 118)
- 36 mm pole mount flange
- Butterfly handles
- Transport casters
- PU coating
- Protective cover optionally available

4 Installation

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

For operation, the device must be placed on its rubber feet. Therefore tip the unit over its protected edge. Do not take the device into operation while standing on its casters. Otherwise there's a danger of overheating and the chance for uncontrolled movement.

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.

CAUTION!

Risk of injury due to heavy weight

Due to the heavy weight of the device, at least two persons are required for transport and installation.

NOTICE!

Possible property damage by magnetic fields

Loudspeakers produce a static magnetic field. Therefore, maintain an appropriate distance to devices that can be adversely affected or damaged by an external magnetic field.

4.1 Tips on handling speakers

We recommend you to set up the speakers in a way, that the sound signals can reach the audience unobstructedly. It will often be helpful to mount the speakers on tripods. Thus, the sound will be evenly spread with maximum range throughout the audience area.

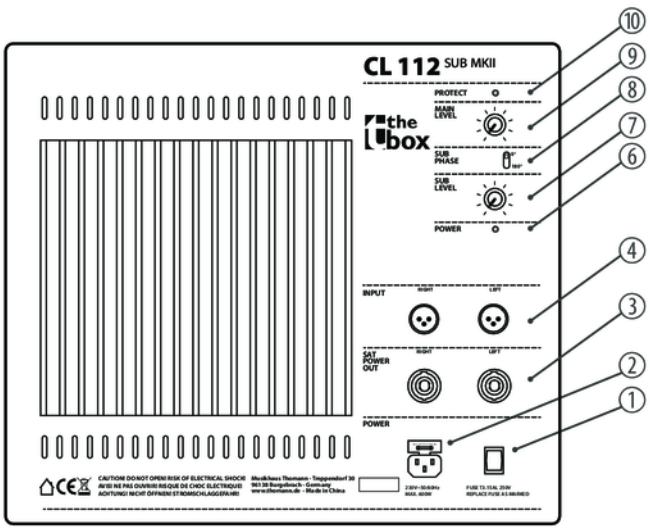
Always use high grade cable to connect your equipment. Otherwise you won't reach maximum sound quality.

For optimum results both impedance and power handling of the speakers must match the requirements of the amplifier. Always follow the technical specifications of the speakers! The overall impedance of the connected loudspeakers must not deceed the minimum output impedance of the amp. The amps max. RMS output power should be 50 % above the power handling capacity of the connected speakers.

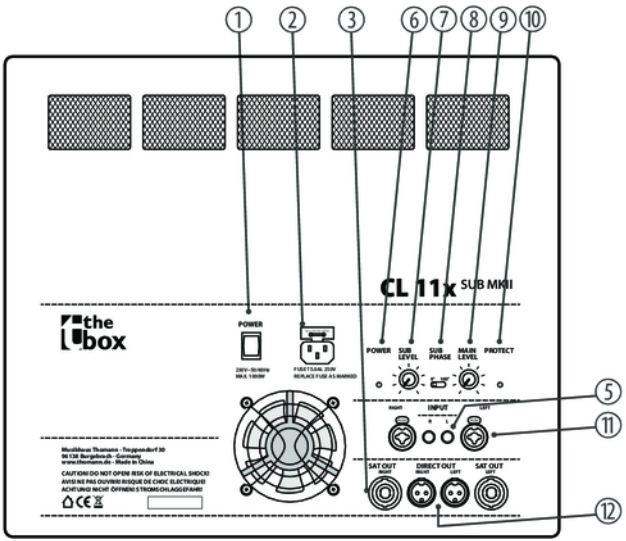
If you notice distortion during operation, either the amp or the speaker is overloaded. This may permanently damage the amp or the speaker. Always reduce the volume when you hear distortion.

5 Connections and operating elements

Rear panel CL 112 SUB MKII



**Rear panel CL 115 SUB MKII,
CL 118 SUB MKII**



1	Mains switch *[POWER]* Turns the device on and off.
2	IEC chassis plug with fuse holder for the power supply.
3	*[SAT POWER OUT RIGHT | LEFT]* Speaker outputs (NL4 chassis connectors).
4	*[INPUT RIGHT | LEFT]* Inputs for balanced or unbalanced line level signals (XLR sockets).
5	*[INPUT RIGHT | LEFT]* Inputs for balanced or unbalanced line level signals (RCA sockets).
6	*[POWER]* This LED indicates that the device is switched on and operational.
7	*[SUB LEVEL]* This rotary control can be used to adjust the subwoofer volume.

8	*[SUB PHASE]* This slide switch can be used to reverse the phasing (0 ° / 180 °). This avoids unwanted cancellation effects in combination with other speakers.
9	*[MAIN LEVEL]* This rotary control can be used to adjust the overall volume (subwoofer and connected external speakers).
10	*[PROTECT]* This LED lights up red when the unit switches to protection mode. In this case, check the cables for short circuit or bad connection. If this LED lights constantly, please contact our service centre. Contact details can be found at *www.thomann.de*.
11	*[INPUT RIGHT | LEFT]* Inputs for balanced or unbalanced line level signals (XLR / 1/4" combo sockets).
12	*[DIRECT OUT]* Outputs for connecting the subwoofer to a mixer (XLR connector).

6 Technical specifications

	CL 112 SUB MKII (item no. 341323)	CL 115 SUB MKII (item no. 341324)	CL 118 SUB MKII (item no. 341325)
System	Active subwoofer	Active subwoofer	Active subwoofer
Speakers	1 × 12" woofer	1 × 15" woofer	1 × 18" woofer
Inputs	2 × XLR (balanced), 2 × 1/4" (balanced/unbalanced)	2 × XLR (balanced), 2 × 1/4" (balanced/unbalanced), 2 × RCA	2 × XLR (balanced), 2 × 1/4" (balanced/unbalanced), 2 × RCA
Outputs	Lockable NL4 chassis connector (1+/1-)	Lockable NL4 chassis connector (1+/1-), 2 × DIRECT OUT (XLR)	Lockable NL4 chassis connector (1+/1-), 2 × DIRECT OUT (XLR)
Impedance passive speakers	min. 4 Ω	min. 4 Ω	min. 4 Ω
Frequency response	40…150 Hz	35…130 Hz	33…110 Hz
Power output subwoofer	120 W (RMS)	220 W (RMS)	350 W (RMS)
	300 W (PEAK)	500 W (PEAK)	700 W (PEAK)

	CL 112 SUB MKII (item no. 341323)	CL 115 SUB MKII (item no. 341324)	CL 118 SUB MKII (item no. 341325)
Power output to satellites	2 × 120 W (RMS)	2 × 220 W (RMS)	2 × 220 W (RMS)
	2 × 300 W (PEAK)	2 × 500 W (PEAK)	2 × 500 W (PEAK)
Sound pressure level	118 dB (max.)	122 dB (max.)	124 dB (max.)
Operating supply voltage	AC 220…240 V ~ , 50/60 Hz	AC 220…240 V ~ , 50/60 Hz	AC 220…240 V ~ , 50/60 Hz
Power consumption	600 W	1000 W	1000 W
Fuse	3.15 A / 250 V, slow-blow, 5 × 20 mm	5.0 A / 250 V, slow-blow, 5 × 20 mm	5.0 A / 250 V, slow-blow, 5 × 20 mm
Dimensions (W × D × H)	420 mm × 475 mm × 500 mm	460 mm × 565 mm × 610 mm	540 mm × 620 mm × 660 mm
Weight	29 kg	40 kg	47 kg

7 Plug and connection assignments

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment in such a way that a perfect sound experience is ensured.

Please note these advices, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into the socket, an incorrect connection may result in a destroyed power amp, a short circuit or 'just' in poor transmission quality!

Balanced and unbalanced transmission

Unbalanced transmission is mainly used in semi-professional environment and in hifi use. Instrument cables with two conductors (one core plus shielding) are typical representatives of the unbalanced transmission. One conductor is ground and shielding while the signal is transmitted through the core.

Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

In a professional environment, therefore, the balanced transmission is preferred, because this enables an undisturbed transmission of signals over long distances. In addition to the conductors 'Ground' and 'Signal', in a balanced transmission a second core is added. This also transfers the signal, but phase-shifted by 180°.

Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

1/4" TS phone plug (mono, unbalanced)

1	Signal
2	Ground, shielding

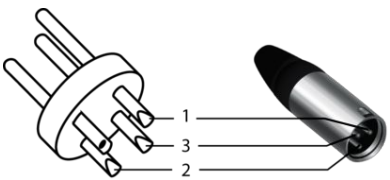
1/4" TRS phone plug (mono, balanced)

1	Signal (in phase, +)
2	Signal (out of phase, –)
3	Ground

1/4" TRS phone plug (stereo, unbalanced)

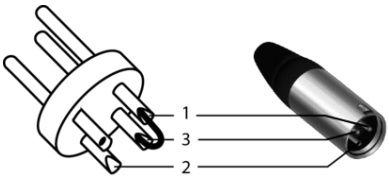
1	Signal (left)
2	Signal (right)
3	Ground

XLR plug (balanced)



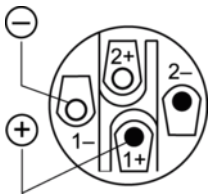
1	Ground, shielding
2	Signal (in phase, +)
3	Signal (out of phase, –)

XLR plug (unbalanced)



1	Ground, shielding
2	Signal
3	Bridged to pin 1

NL4 connections



1, +	Signal 1 (in phase)
1, –	Signal 1 (out of phase)

8 Protecting the environment

Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE). Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.